

present a more resisting structure than do those of the *Mylodon*; having a larger proportion of the dense ivory composed of the minute calcigerous tubes, and a much smaller proportion of the softer external cæmentum; in this respect the *Scelidother* recedes farther from *Megathere*, and approaches nearer the *Armadillos* than does the *Mylodon*.

The lower jaw resembles, in the general form of the posterior moiety which is here preserved, that of the *Sloth* and *Mylodon* more than that of any other Edentate species. Its deep posterior angle is produced backwards, and a broad coronoid process rises and nearly fills the zygomatic space; the condyle is flat, as the glenoid surface has already indicated; its transverse diameter is an inch and eight lines; its antero-posterior diameter seven lines: it is principally extended inwards beyond the vertical line of the ascending ramus. The lower contour of the jaw describes an undulating line; which, commencing from the posterior angle, is at first gently convex, then slightly concave, then again convex, below the alveoli of the teeth, where it is rounded and expanded, as in the *Orycterope*. The fractured condition of the right ramus of this part fortunately exposed the roots of the four grinding teeth, which constitute the dental series on each side of the lower jaw. The length of the jaw occupied by these four alveoli is three inches ten lines, which exceeds a little that of the opposed five grinders above; the ramus of the jaw gradually diminishes in all its dimensions anterior to the molar teeth; the dental canal passes in a gentle curve below, and on the inner side of the alveoli, whence it gradually inclines to the outer wall of the jaw.

The whole ascending ramus of the jaw consists of a very thin plate of bone; it is slightly concave on the inner side, and the inferior margin of the produced angle inclines inwards, as in the *Mylodon* and *Sloth*; it is impressed on the outer side with two shallow depressions, and two parallel ridges, both following the gentle curvature of the part. There is a foramen on the outer side of the ramus at the anterior part of the base of the coronoid process corresponding with that in the lower jaw of the *Mylodon*, but the longitudinal channel which runs along the outer side of the alveolar processes is wanting, and the expansion at the base of those processes is more sudden and relatively greater; the general correspondence, however, between these lower jaws is such as would lead to the idea that they belonged to animals of the same genus, were it not that the teeth present modifications of form in the *Scelidother*, as distinct from those of the *Mylodon*, as are any of the minor dental differences on which genera or sub-genera of existing Mammalia are founded in the present state of Zoological Classification.

To make this distinction more readily intelligible, I have given a view of the transverse section of the teeth in the right ramus of the lower jaw (fig. 4, Pl. XXIII.), corresponding with that of the *Mylodon Darwinii*, (Pl. XVII., fig. 5). In the present

sub-genus the antero-posterior extent of the four alveoli of the lower jaw nearly equals four inches, and is relatively greater than in the *Mylodon*, although the teeth are placed closer together; this is owing to their greater relative size. The first molar tooth presents the simplest form; its transverse section is a compressed inequilateral triangle with the angles rounded off; the longest diameter of this section which is parallel with the inner alveolar border is eleven lines, the transverse diameter almost six lines; the base or broadest side of the triangle is turned inwards, and is slightly concave; the two smaller sides are also slightly concave.

The second molar is placed more obliquely in the jaw; the long axis of its transverse section intersects at an acute angle that of the jaw itself; the transverse section presents a compressed or oblong form, with the larger end next the outer side, and the smaller end next the inner side of the jaw; this end is simply rounded, but the outer end presents a sinuosity, corresponding to a broad groove which traverses the whole length of the outer side of the tooth; the anterior, which corresponds to the internal side or base of the transverse section of the preceding molar, is slightly concave.

The third molar has nearly the same form and relative position as the preceding; the long diameter of the transverse section is, in both, ten lines and a half; the principal transverse diameter is, in the second molar five lines, in the third nearly six; the difference of form observable in these as compared with the two middle grinders of the *Mylodon* is well marked; in the latter these teeth are impressed with a longitudinal groove on their inner sides; in the *Scelidother* they have a similar impression along their outer but not along the inner side.

In the last molar the resemblance is much closer, and the modification of form by which it differs from the preceding ones is of the same kind; the transverse section gives an irregular oblong figure with its axis nearly parallel with that of the jaw, and constricted at the middle by sinuities produced by two wide channels which traverse longitudinally, one the outer, the other the inner side of the tooth; the latter groove is much wider and shallower in the *Scelidother* than in the *Mylodon*. The two lobes produced by these grooves are more equal in *Scelidother*; the anterior one is concave on its anterior surface instead of convex as in the *Mylodon*; the posterior one is more compressed; the longitudinal or antero-posterior diameter of the transverse section of this tooth is one inch five lines; the greatest transverse diameter is nine lines; the diameter of the isthmus joining the lobes is three lines and a half; the entire length of this tooth is three inches three lines.\*

\* It requires little stretch of imagination to conceive that this more complex posterior tooth (Pl. XXIII, fig. 4, 4) in the lower jaw is the representative of the two smaller posterior teeth (ib. fig. 3, 4, and 5) of the upper jaw conjoined.